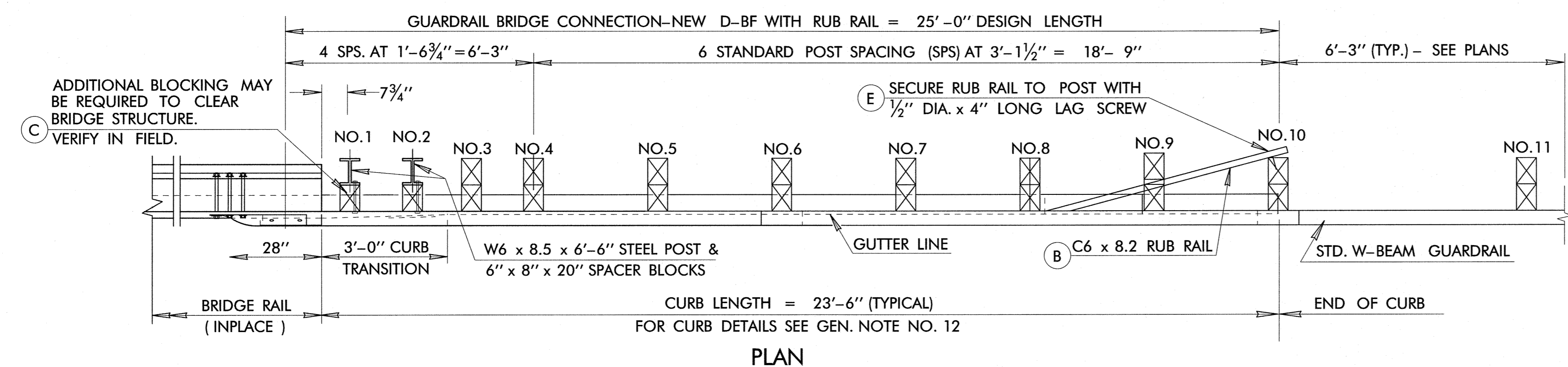
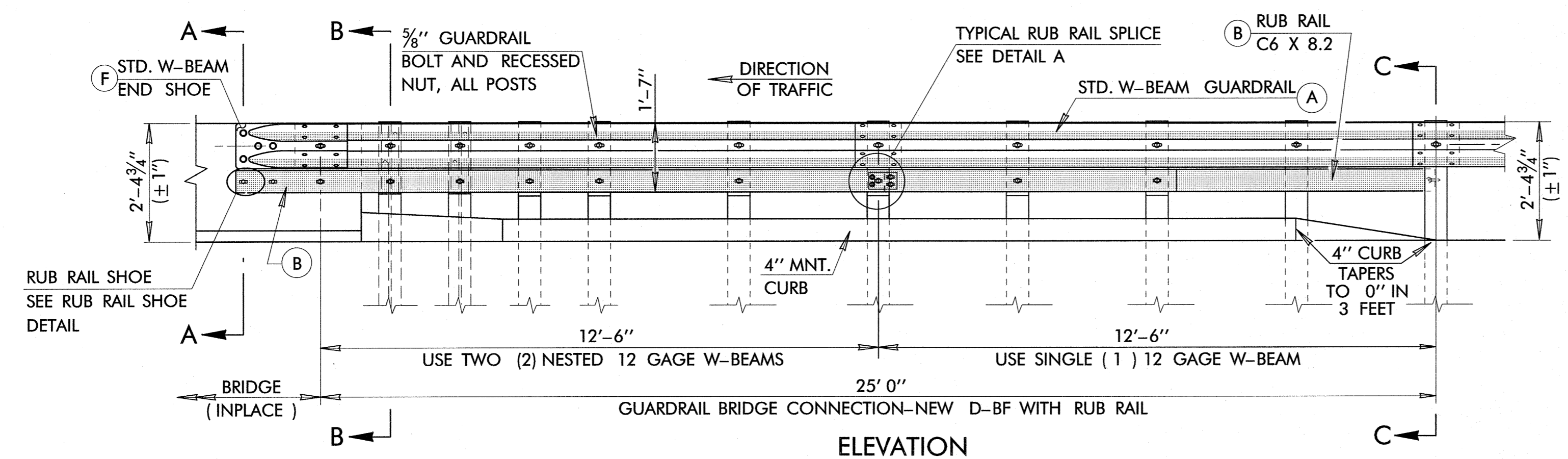


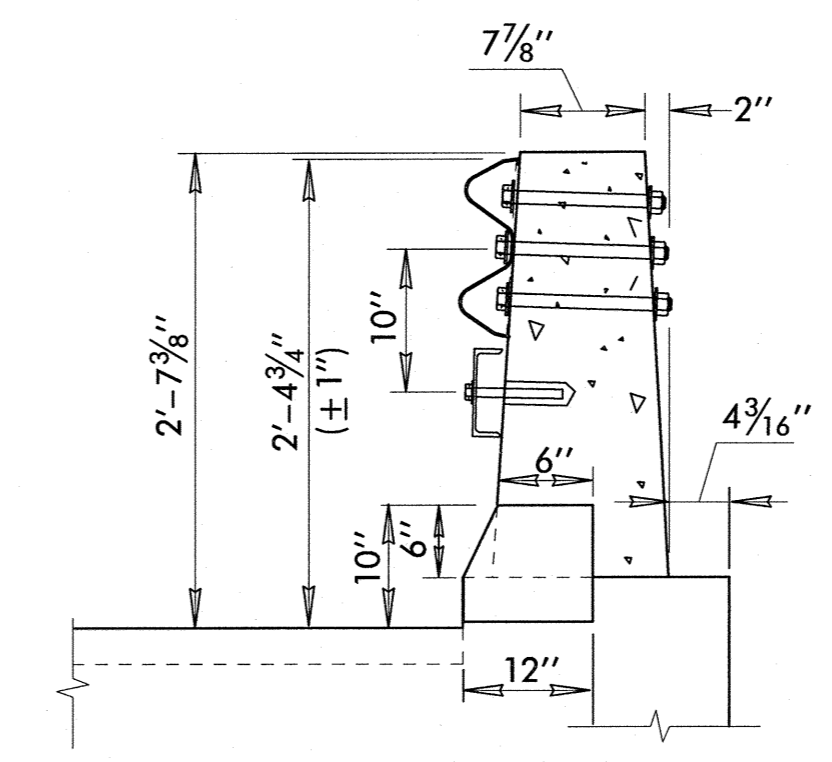
DESCRIPTION	REVISIONS	DATE



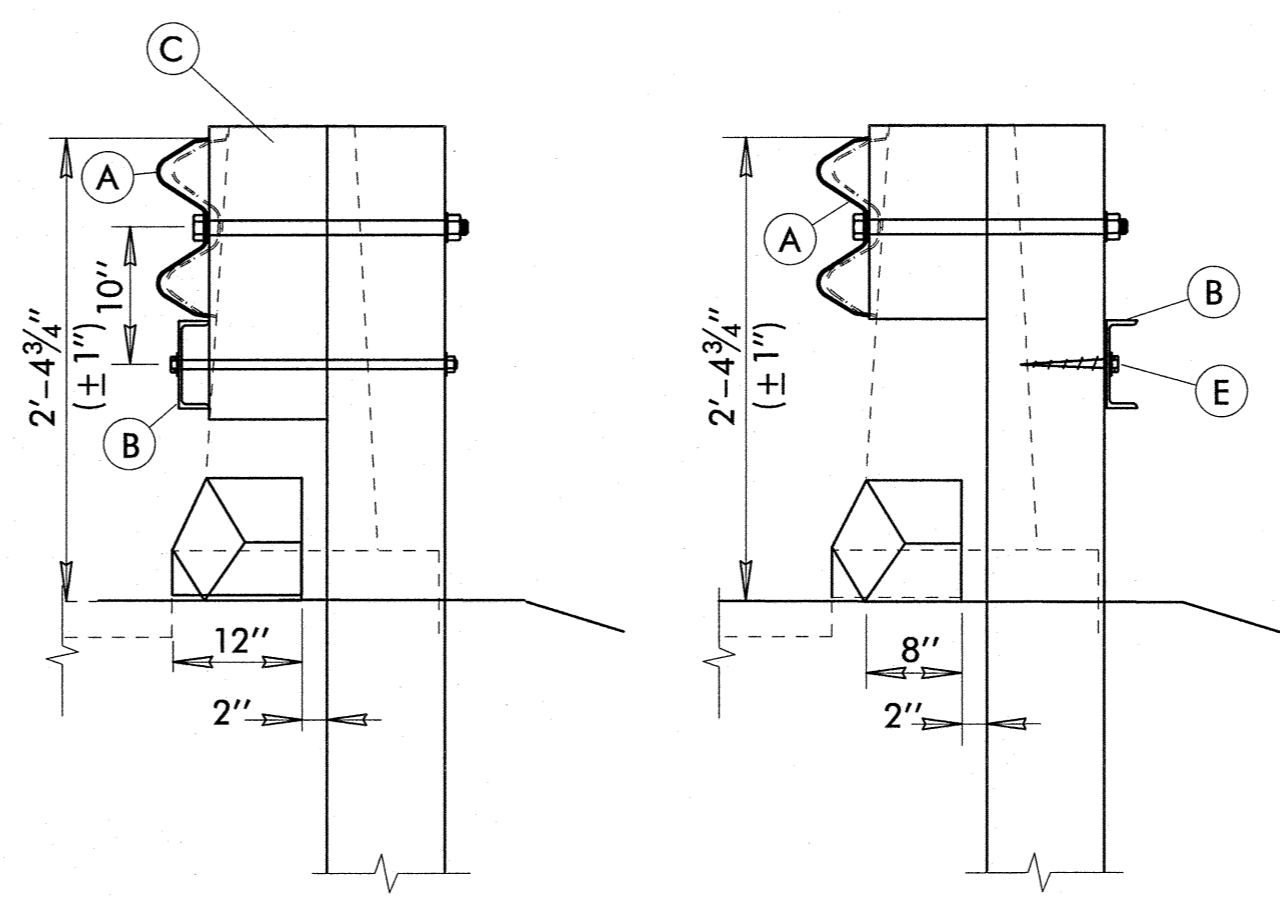
PLAN



ELEVATION
GENERAL ASSEMBLY DETAILS

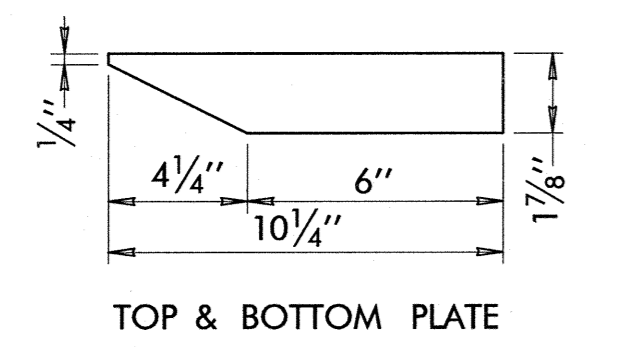


SECTION A-A

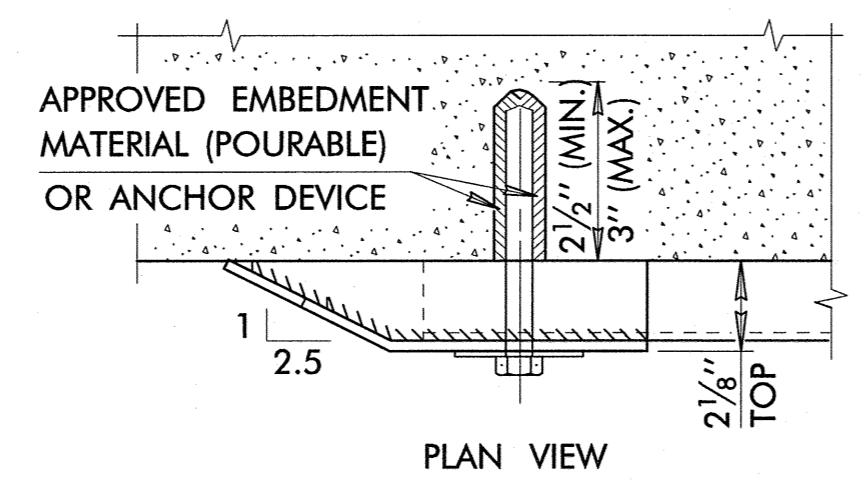


SECTION B-B
POSTS 1 & 2 ONLY

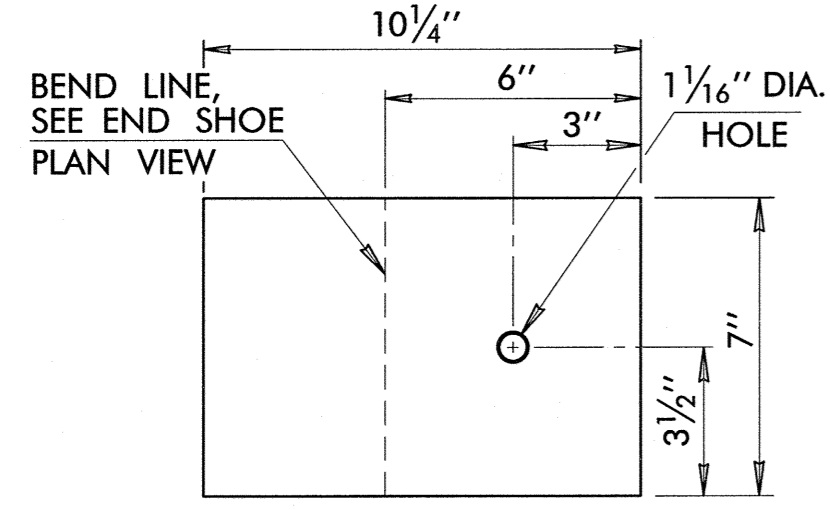
SECTION C-C



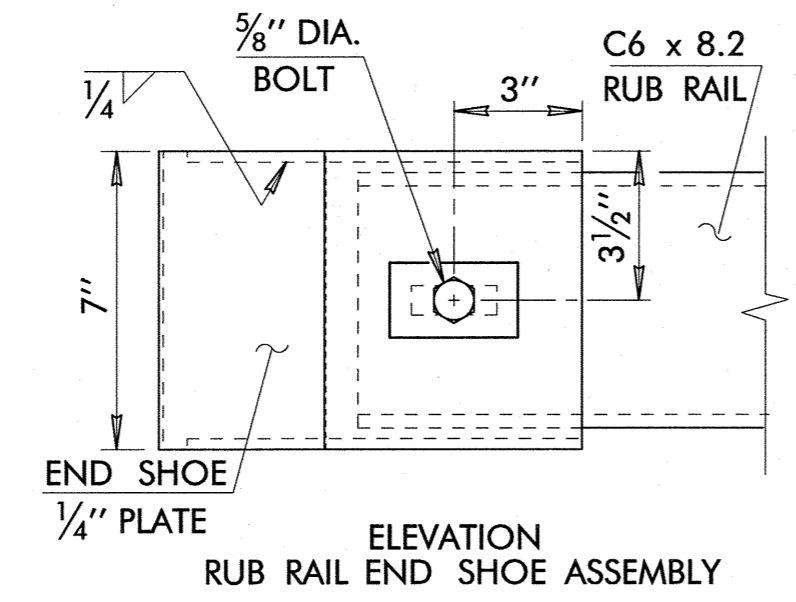
TOP & BOTTOM PLATE



PLAN VIEW

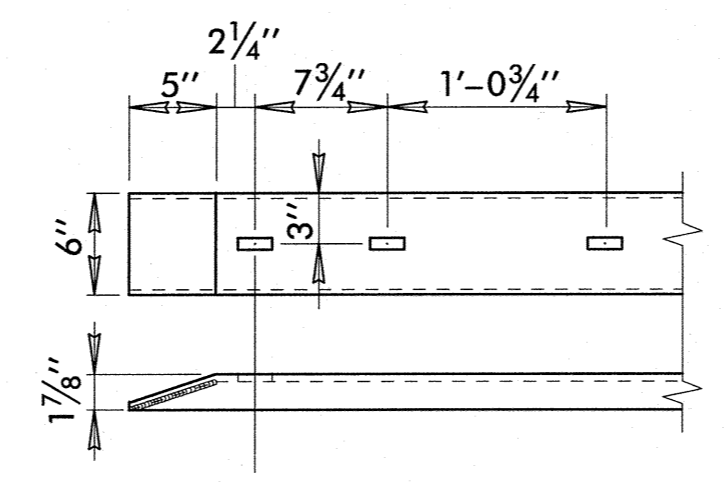


FRONT PLATE
END SHOE PLATE DETAILS
(A36 - 1/4" STEEL PLATE)

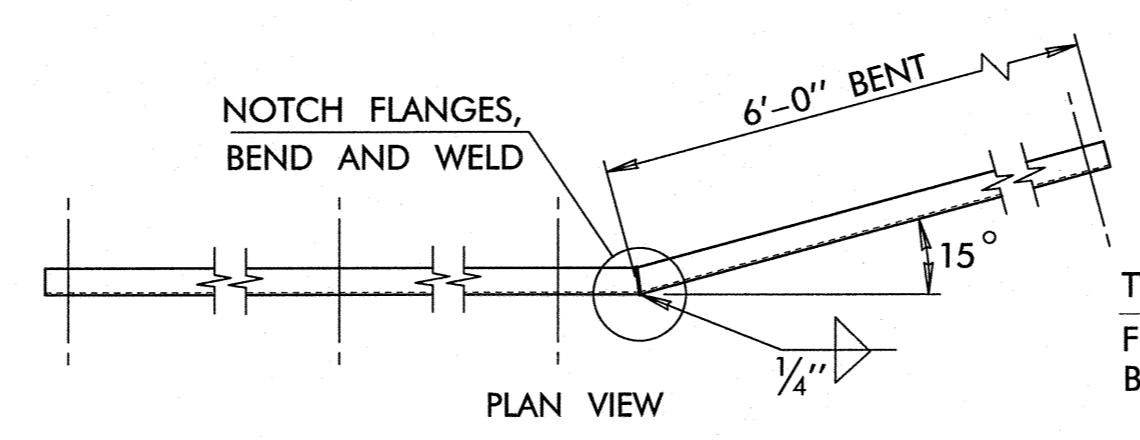


ELEVATION
RUB RAIL END SHOE ASSEMBLY

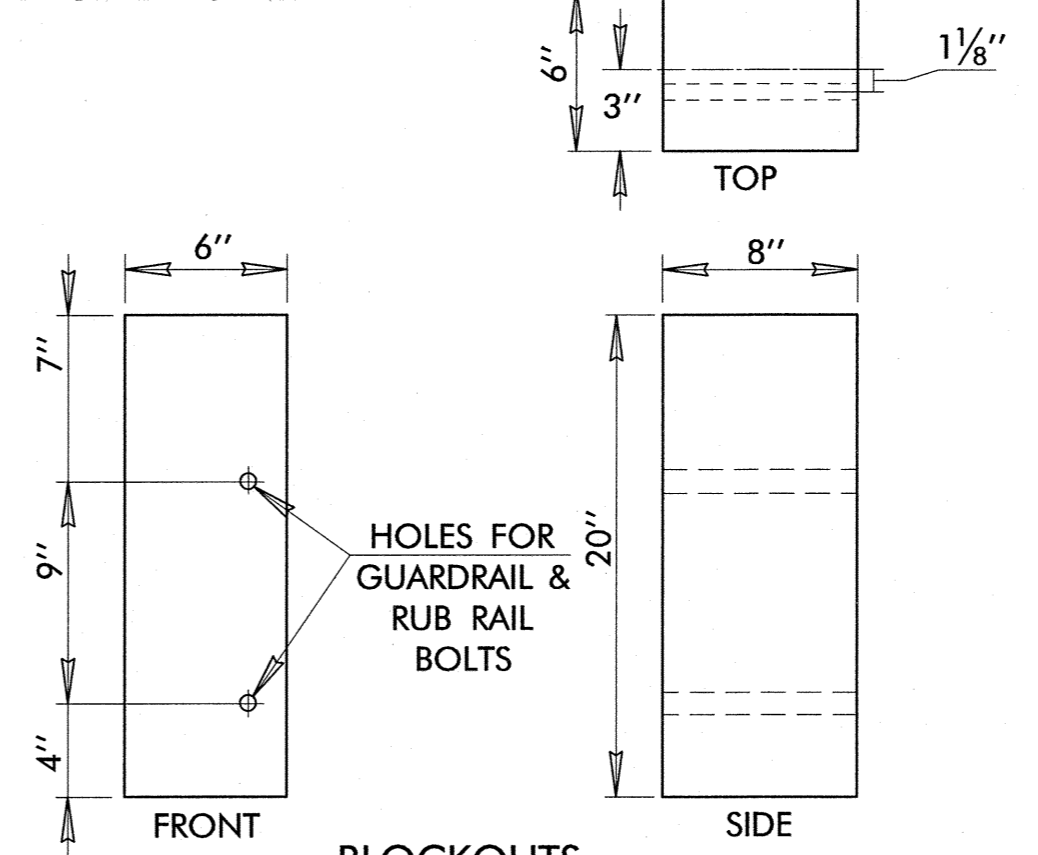
RUB RAIL SHOE DETAIL



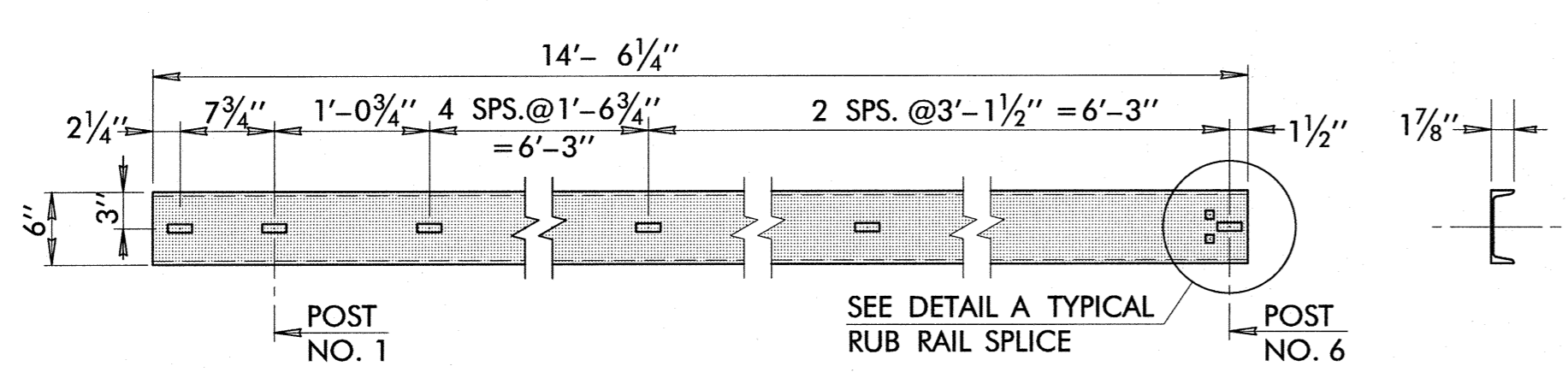
RUB RAIL ALTERNATE END DETAIL



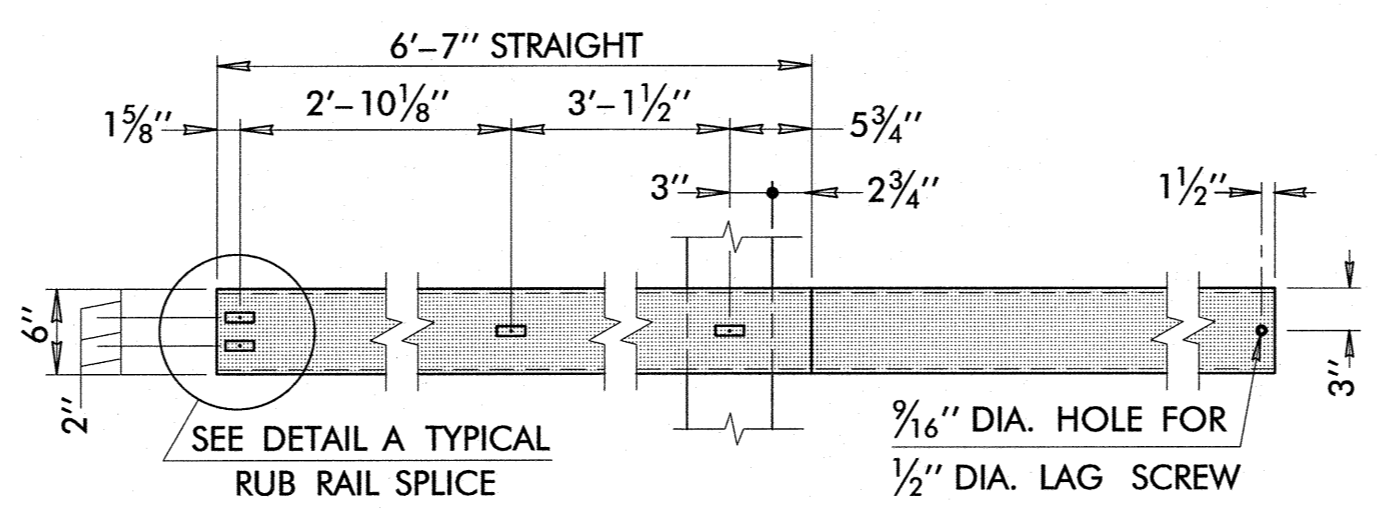
PLAN VIEW



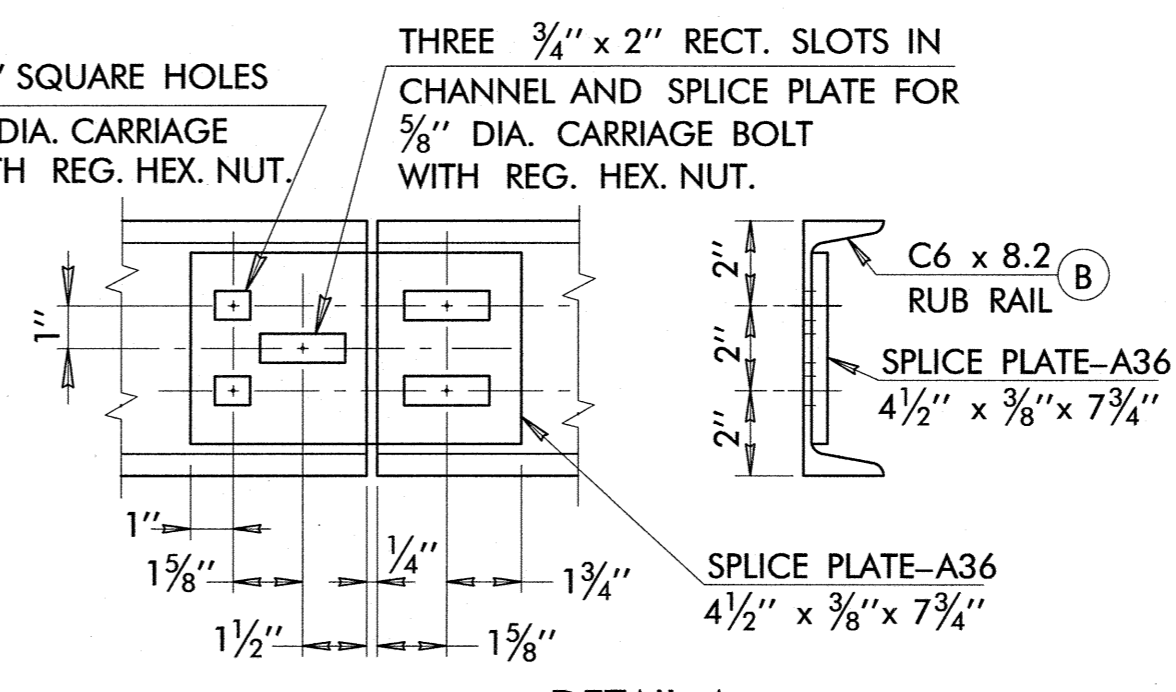
BLOCKOUTS
POSTS 1 & 2 (ONLY)



ELEVATION
RUB RAIL STRAIGHT SECTION



ELEVATION
RUB RAIL BENT SECTION



DETAIL A
TYPICAL RUB RAIL SPLICE

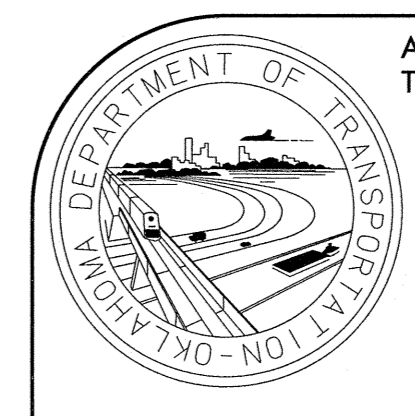
NOTE: RAIL SPLICES TO OCCUR AT POSTS ONLY

- GENERAL NOTES
1. ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE 2009 ENGLISH STANDARD SPECIFICATIONS.
 2. THE BRIDGE CONTRACTOR SHALL PROVIDE HOLES FOR THE CONNECTION OF W-BEAM TERMINAL CONNECTOR (END SHOE) TO BRIDGE RAIL AND SLOPED FACE PARAPET. RETROFIT CONNECTIONS FOR GUARDRAIL SHALL BE FIELD DRILLED BY THE GUARDRAIL CONTRACTOR.
 3. ALTERNATIVE POSTS MAY BE USED IN LIEU OF THE POSTS SHOWN ON THIS STANDARD, IF THEY ARE CERTIFIED AS NCHRP-350, TL-3, TESTED AND APPROVED BY THE ENGINEER.
 4. WOOD BLOCKOUTS MAY BE USED IN LIEU OF THE COMPOSITE OR SYNTHETIC BLOCKOUTS, IF BLOCKOUT IS ODOT APPROVED.
 5. POST SPACING AND FACE OF RAIL ALIGNMENT REMAINS THE SAME AS ORIGINAL INSTALLATION.
 6. ALL SLOTTED HOLES ARE 11/16" x 2" & ALL SQUARE HOLES ARE 11/16".
 7. RUB RAIL IS C6 X 8.2 STEEL CHANNEL, GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 SPECIFICATIONS.
 8. STANDARD W-BEAM END SHOE IS REQUIRED.
 9. ADDITIONAL BLOCKING MAY BE REQUIRED AT POSTS 1, 2 AND/OR 9.
 10. FOR RUB RAIL NON-STANDARD LENGTHS, SEE RUB RAIL DETAILS.
 11. TRANSITION HEIGHT FROM EXISTING HOLES IN PARAPET TO 1'-9 3/4" AT POST NO.6.
 12. FOR 4" MOUNTABLE CURB DETAILS, SEE ROADWAY STD. CSD-5, LATEST REVISION.
 13. RUB RAIL END SHOE NOT REQUIRED IF C-CHANNEL RUB RAIL IS FABRICATED WITH TAPERED END AND ATTACHED TO WALL AS SHOWN ON THIS SHEET (SEE RUB RAIL ALTERNATE END DETAIL).

BILL OF MATERIAL		
DESCRIPTION	LENGTH/SIZE	QTY
5/8" DIA. GUARDRAIL BOLT & RECESSED NUT (POSTS 1-10)	22" MIN.	10
5/8" DIA. GUARD. BOLT & RECESSED NUT (RUB RAIL) (POSTS 1-8)	22" MIN.	8
5/8" DIA. CARRIAGE BOLT WITH NUT (RUBRAIL SPLICE)	1 1/2"	4
5/8" DIA. BOLTS WITH CONCRETE ANCHORS	5 3/4"	2
(E) 1/2" DIA. LAG SCREW (THROUGH RUBRAIL INTO POST NO. 10)	4"	1
(B) C6 X 8.2 RUB RAIL (BRIDGE TO POST NO. 6)	14'-6 1/4"	1
(B) C6 X 8.2 RUB RAIL (POST NO. 6 TO POST NO. 10)	12'-10"	1
3/8" THICK SPLICE PLATE (RUB RAIL)	4 1/2" x 3/8" x 7 3/4"	1
(A) W-BEAM GUARDRAIL (12 GAUGE)	12'-6"	3
(F) W-BEAM GUARDRAIL ENDSHOE (12 GAUGE)	30"	1
W6 x 8.5 x 6'-6" STEEL POST (POSTS 1-2)	8'-0" MIN.	2
6" X 8" TIMBER POSTS (POSTS 3-10)	7'-0" MIN.	8
SINGLE PIECE BLOCKOUT FOR RUBRAIL & GUARDRAIL		
(C) 6" X 8" X 20" SPACER BLOCKS (POSTS 1-10)	1'-10"	10

BASIS OF PAYMENT		
ITEM NO.	ITEM	UNIT
623(F)	GUARDRAIL ANCHOR UNIT (TYPE D-BF)	EA.

THE GUARDRAIL BRIDGE CONNECTION-NEW D-BF WITH RUB RAIL CONSISTS OF CONSTRUCTING TWO (NESTED) W-BEAM GUARDRAILS, FOLLOWED BY A SINGLE W-BEAM GUARDRAIL ABOVE A GALVANIZED STEEL C-CHANNEL RUB RAIL & 4" MOUNTABLE CURBING AND ALL NECESSARY POSTS, BLOCKOUTS, HARDWARE AND END SHOES, TO AN EXISTING OR NEW VERTICAL OR NEAR VERTICAL (LESS THAN 6 DEG.) CONCRETE WALL. (SEE GENERAL NOTE NUMBERS 3 & 4)



APPROVED BY TRAFFIC ENGINEER: *David Smith* DATE: 4/9/12

TRAFFIC STANDARD

GUARDRAIL BRIDGE CONNECTION-NEW D-BF WITH RUB RAIL (27 3/4" SYSTEM)

2009 SPECIFICATIONS

DBF-1	00
T-608	